DOCUMENT RESUME

ED 429 663 PS 027 054

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TITLE Parenting through Play for School Readiness: Interim Report of Year One. Research Findings.
INSTITUTION Yale Univ., New Haven, CT. Family Television Research and Consultation Center.; Media Group of Connecticut, Inc., Weston.
SPONS AGENCY National Inst. on Early Childhood Development and Education (ED/OERI), Washington, DC.
PUB DATE 1998-09-00
NOTE 48p.
CONTRACT R307F70031
PUB TYPE Reports - Evaluative (142) -- Tests/Questionnaires (160)
EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Academic Achievement; At Risk Persons; Disadvantaged Youth; *Low Income Groups; Parent Child Relationship; Parent Education; Parent Influence; *Parent Participation; Parent Role; *Play; *Preschool Children; Preschool Education; Program Evaluation; *School Readiness; Student Behavior

ABSTRACT

A 2-year project was undertaken to develop, test, and distribute a video-based program to train low-income parents in engaging their 3- to 5-year-old children in highly motivating play techniques in order to enhance children's cognitive, social and motor skills for school readiness. An evaluation was conducted of the Year One phase of the training materials and procedures, and the effectiveness of the parent-training in leading to higher school readiness scores. The participants were the parents of 103 preschool children from inner city schools. The findings of the child assessments after 2 weeks of parent training indicate that children of parents who participated in the program showed significantly higher scores than the control children in the Total School Readiness Test, particularly in the areas of vocabulary, nature knowledge, general information, and awareness of good manners. This suggests that types of play-training methods and materials developed for the project can impact the ability of low-income parents to enhance their children's cognitive and social skills. (Twelve appendices include a list of participating schools, data on the child care centers, and copies of testing instruments and data collection materials.) (JPB)

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**United States**
**Department of Education**
**Early Childhood Institute**
**Grant Number R307F70031**

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Parenting Through PLAY For School Readiness

# Interim Report of Year One Research Findings

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September, 1998

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# Executive Summary

### Objectives of This Two-Year Project

- Develop, test, refine, and nationally disseminate a video-based program to train low-income parents/caregivers to engage their 3-5-year-old children in highly motivating play techniques which research has shown to enhance children's cognitive, social and motor skills for school readiness.
- Nationally disseminating 2,500 free copies of the empirically-tested training video and its printed manual to organizations that serve (and/or train those who serve) low-income families to help train large numbers of parents/caregivers in simple, effective, inexpensive, enjoyable techniques for improving low-income children's school-readiness skills.
- National Significance: Improve early childhood learning by fully applying video, text, graphics and online media to develop an empirically-tested, low-cost, easily-replicable program for training low-income parents/caregivers to strengthen their children's ready-to-learn skills, through proven techniques similar to those presented in the America Reads Challenge *Ready*Set*Read Early Childhood Learning Kit*.

### Year One Objectives

- Adapt parent-training curricula by Drs. Jerome and Dorothy Singer of Yale University into "beta" (test) version of the video-based training program with four games to enhance school readiness skills.
- Test beta version of program in training sessions with Experimental and Control Groups of low-income parents, and measure their preschool children's ready-to-learn skills before and after intervention. Analyze test results and parent feedback, and refine program contents and format accordingly.

This report describes the research evaluation of the Year One training materials and procedures and the effectiveness of the parent-training in leading to higher school readiness scores for children from low-income families.

### General Population Characteristics

The participants were the parents of 103 preschool children (53 girls, 50 boys) ages three and four. The groups were drawn from 5 inner city preschools and randomly assigned to Experimental (Parent-Training) and Control Groups. The average SES level was 6 on a 7 point scale suggesting a relatively economically-limited group with a mix of Caucasian, African-American and Latino children.

There were no initial significant differences between Experimental and Control Groups on demographic features or on the initial testing of children using a School Readiness series of measures.

### Training Procedures

- All Experimental Group parents met twice for 90-minute training sessions during a two-week period. Training involved brief lectures on the values of symbolic play, instruction in using our ("beta") printed manuals and viewing with follow-up discussion of our ("beta") training video demonstrating imaginative games parents could play with their children. These games incorporated School Readiness features such as Vocabulary, Counting, General Information, Nature Knowledge and Awareness of Good Manners.
- Parents were encouraged to play regularly with their children during a two-week period. They kept logs of their efforts and of their children's responses to the play initiations. Parents also provided qualitative feedback on the games and the training procedures and materials.

### Child Assessments

- Quantitative and qualitative data from the parents' logs indicate that the children were highly responsive to the games and that parents averaged between 10-45 minutes daily in such play.
- Following two weeks of parent training, trained teams of raters, whose reliability had proven satisfactory in an earlier phase of the study, scored the Experimental and Control children with a School Readiness measure and an instrument for assessing behavioral variables.
- The major results of the study indicate that the children in the Experimental Group show significantly higher scores than the Control Group children in the total School Readiness Test and specifically in Vocabulary, Nature Knowledge, General Information and Awareness of Good Manners.

### Implications

Year One research findings suggest that the types of play-training methods and materials developed for this project can have a strong impact on the ability of low-income parents to enhance their children's cognitive and social skills needed for effective school entry.

On the basis of Year One testing, in Year Two we will retain the most effective features of the "beta" versions of the training materials, i.e., those elements that led to measurable changes in children's skills, such as vocabulary. We will augment these components with new materials to address needs discovered in Year One testing, e.g., the need to include a training component for daycare workers.

We will then test, refine and nationally-disseminate 2,500 free copies of the revised, empirically-tested, easily replicable, video-based program to organizations that serve low-income families with preschool children, who will use it to train parents/caregivers to engage 3-5-year-old children in highly motivating play techniques to enhance children's school readiness skills.

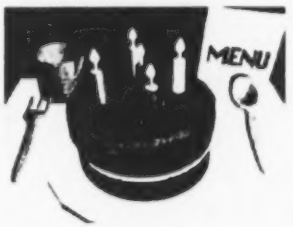
# Training Materials Used in Research

## A. Contents of Beta (Test) Versions of Training Materials

In Year One, we adapted skills-enhancing play techniques in a book by Principal Investigators, Drs. Jerome and Dorothy Singer, *Make Believe: Games and Activities to Foster Imaginative Play in Young Children*, into a "beta" (test) version of the training program — a training video and its accompanying printed manuals.

Play activities included in the "beta" version of the training program were:

(1) ***Restaurant Game***. A story about a birthday party at a pretend restaurant. Designed to enhance preschoolers' skills in sequencing, planning, politeness, sharing, cooperation, counting, color and shape recognition, and fine motor skills (pretend writing).




(2) ***Submarine Game***. A travel game about a pretend submarine trip to the ocean floor to find a sunken treasure. Designed to enhance children's vocabulary, language usage, counting skills, color and shape recognition, and fine motor skills.

(3) ***Bus to the Zoo***. Another travel game about a pretend bus ride to the zoo to help a monkey find his lost banana. Designed to enhance children's vocabulary (e.g., names of animals), language usage, politeness, color recognition, large motor skills, and familiarity with local educational resources (e.g., library).

(4) ***Seasons: The Spring Game***. A spring story about a bunny who eats a gardener's carrots. Designed to enhance children's understanding of emotions and how one's actions affect other people's feelings, sequencing, politeness, vocabulary, language usage, color recognition, large motor skills, imagination, and introduction to science.

**Training Procedures**: Using the video and print training materials described on the following pages, low-income parents of preschool children received two training sessions on engaging their children in these games. They then played these games with their children at home over a two week period.

## B. Beta (Test) Version of Training Video

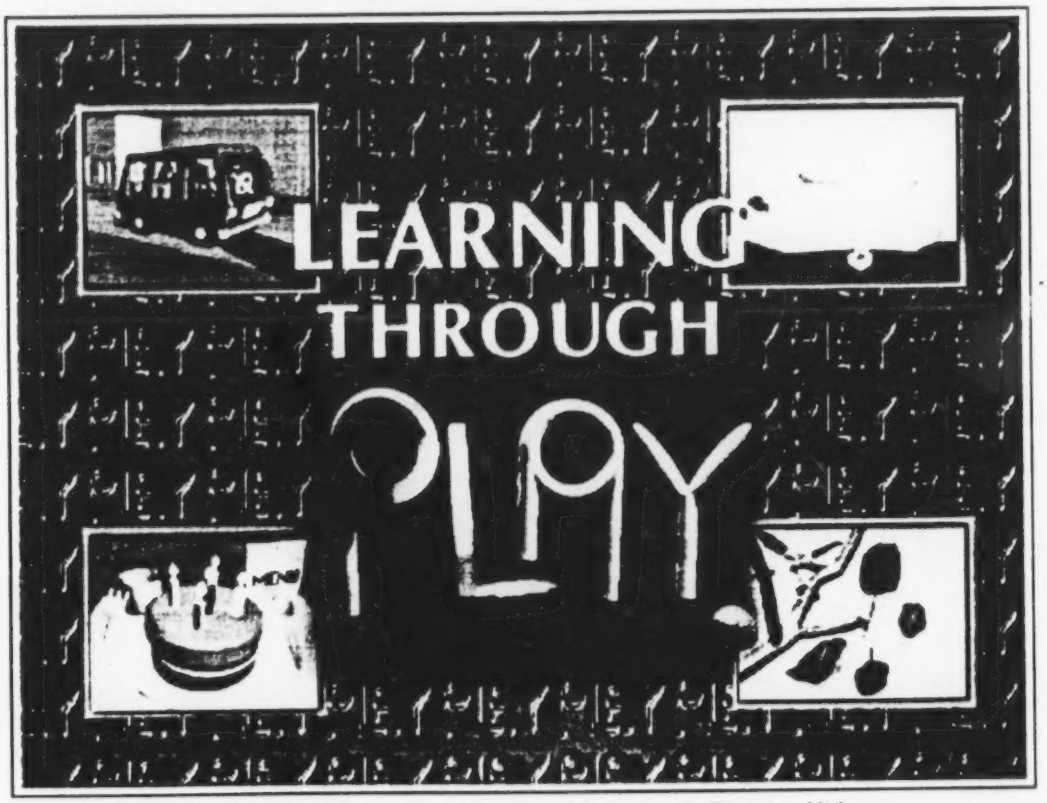
We produced a "beta" version of the training video, which consisted of:

(1) **Introductory and Concluding Messages to Parents of Preschool Children:** Overviews of the benefits of highly-motivating imaginative play for enhancing children's ready-to-learn skills, illustrated with live-action excerpts of children engaging in the program's learning games.

(2) **Demonstrations of How to Play the Four Learning Games:** Live-action sequences of "parents" of various etnicities playing the four learning games (Restaurant, Submarine, Bus to the Zoo, Spring) with 3-5 year-old children. Each sequence demonstrated easy ways to play a particular game using common household items, and included a spoken narration to highlight specific learning activities that occurred at key points in the game.

(3) **Computer-Generated, 3D Animation**: Playful, computer-generated, 3D graphics introduce each game, provide transitions between games, and create the program's tone and "signature". Still-frames from the 3D animations were incorporated into the printed manuals to create a unified style and approach in the training materials.

Both the training video and its accompanying printed manuals were revised extensively in Year One on the basis of feedback from Experimental Group Parents. The revised materials were used in training Control Group parents.




Title Frame of "Beta" (Test) Version of the Project's Training Video.



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## C. Beta (Test) Versions of Printed Training Materials

The "beta" printed training materials consisted of two booklets:

(1) ***INSTRUCTIONS: Games to Play with Your Child.***
Goals and directions for the four primary leaning games and four additional games (another Travel game, "Spaceship to the Moon", and three more Seasons games), as well as an introduction to skills-enhancing play, and a resources list. To help parents focus on fostering the critically important skill of language-usage, we underlined each use of new vocabulary words in the instructions.

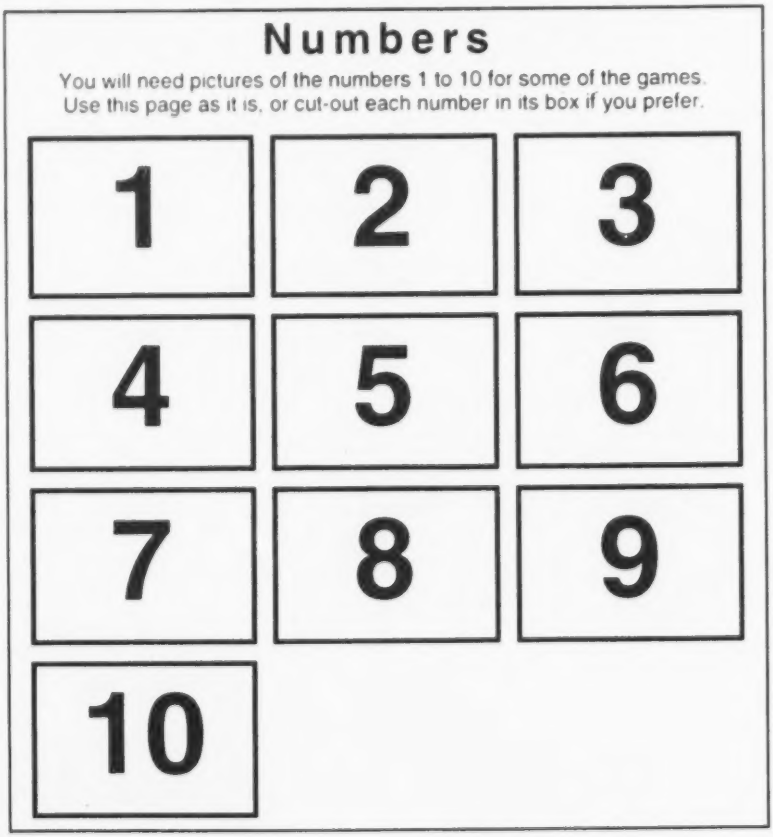
(2) ***MATERIALS: Things to Use for Playing the Games.***
Printed pages of "props" for playing the learning games:

- Numbers (1->10)
- Pretend Money
- Colors Chart
- Happy, Sad, Angry Faces
- Shapes: Circle, Square, Triangle
- Animal Pictures (for "Bus to the Zoo")
- Submarine Game Picture (underwater scene)

The two training booklets were bundled with a log for recording learning games played at home with one's children. The booklets were distributed to parents in the first of two training sessions, which included a presentation of the training video.

*Example of a page from Materials booklet*

*(Shown at reduced scale)*



# Research Results

## A. The Research Questions

A reasonably impressive body of literature going back to Smilansky (1968) and Freyberg (1973) supports the feasibility and value of play training procedures in early childhood (D. Singer & J. Singer, 1990). It still remains important to demonstrate that play training for socioeconomically depressed families, such as this project's sample, can produce gains in children's school readiness skills.

Data collected during Year One of this study were designed to test our play-training procedures and materials (video and manuals), and suggest modifications and improvements for the revised program we will develop in Year Two.

The data collection for this first year sought to provide quantitative and qualitative answers for the following questions:

1. **Who were our participants (children and parents)**? Did the study's New Haven, CT participants represent the project's target population — the lowest socioeconomic ranks of Inner City families with preschool children?

2. **Were Experimental and Control Group equally matched for initial school-readiness skill levels?** Since we drew our participants – although randomly assigned to Experimental and Control Groups – from five different daycare settings, did children at these preschools differ initially in their scores for the Total School Readiness Measure or its subcomponents (e.g., Counting, Manners, Vocabulary, etc.) and in their behavior on the observational data we collected, (e.g., Imaginativeness of Play, Positive Emotionality, Persistence at Tasks, Cooperation with Peers or Teachers)? Once assigned to the Experimental (Parent-Training) or Control groups did the children in the two groups differ significantly from each other in initial scores on the above-mentioned variables?

3. **How did parents utilize the training to engage their children in the learning games?** Once parents had undergone training in using make-believe play games that incorporated school-readiness content, did the parents actually engage their children in such play? Which of the games presented in training sessions, in written materials and on the training video were most frequently employed? Were the frequency of play and the use of particular play themes reflected in the children's Post-Experimental Test Scores? Were the children's ages or gender relevant to the games employed by parents? Were particular games or play themes more effective or less effective than others?

4. **Did the intervention result in measurable gains in children's school-readiness skills?** Did children whose parents had received the two play training sessions and who then engaged in such play over a two week period at home show better total scores and sub scores on the School Readiness measures than did the Control Group children? Could such gains be related to the Observational variables or to the games played as well as to demographic characteristics of the sample, e.g., children's ages, gender, SES level of parents?

Note that we felt an ethical obligation to provide play-training for the initial Control Group parents after we trained and tested the Experimental Group. This training was well received by parents, and the follow-up data collection indicated that Control Group children showed gains over their initial scores comparable to gains by Experimental Group children. Our data presented here will primarily emphasize the initial Experimental and Control Group results.

## B. Results Bearing on Research Questions Raised Above

### 1. Who Were Our Participants? Demographics and initial Experimental-Control Group Comparisons.

#### (a) Preschool Settings from Which Children were Chosen

Administrators of five preschool centers in the New Haven, CT area gave permission for conducting the study. All five schools serve Inner City populations. Three are Head Start-affiliated, two are independent, one is Church-affiliated but non-sectarian. One of the five settings drew heavily on a Latino population, and most communication in that school was conducted in Spanish although signs and notices were uniformly bilingual.

Baseline scores and responses to training, while slightly different from school to school, did not account for any of the study findings since assignment of children to Experimental and Control conditions was carried out randomly. The Experimental and Control schools were chosen randomly to control for the effects of parent and children influence on our sample's play.

#### (b) Demographic Characteristics of the Full Sample and of Experimental and Control Families

103 children participated in the study. Of these 50 were boys, 53 girls. Thirty-four children were 3-year-olds, 63 were 4 year olds and five were 5-year-olds. Ethnically, 33 were classified by parents as Caucasian, 33 as African-American, 18 as Latinos, 4 as Asian-American (Chinese, Japanese or Indian), 12 as of mixed backgrounds with a few unspecified.

The children were described by the preschool setting as 82 solely English-speaking, 9 as Spanish-speaking (but with enough English for testing), 3 as bilingual in English and Spanish and the rest as speaking another language, (e.g., Chinese, Hindi, Russian) but with enough English for participation. Our critical groups (Experimental and Control) showed no overweighting of non-English focused children in their constituents. Three quarters of the parents in our Experimental and Control groups were primarily English-speaking with 14 primarily Spanish-speaking and the balance bilingual. Again, none of our findings concerning training response could be attributed to parental language differences for children in the groups.

Parental marital status analyses indicated that only 47 of the children's parents were currently married, 5 were divorced, 14 separated and in 35 instances the child was being reared by an unwed parent or another single relative.

Demographic data data clearly reflect an economically-depressed sample.

More than half of these preschoolers were being reared by a single parent, mostly the mother. Again. with random assignment to the Experimental and Control groups neither group showed an overweighting of two-parent or single parent-reared children at the outset.

With respect to family Socioeconomic Status (SES), we based our scoring primarily upon parental (or other caregiver) occupations. When both parents were child-rearers we chose the highest score of the two as an estimate. On a scale of 1 for highest SES (managerial, professional, etc.) to 7 for lowest (unemployed, part-time employed in minimum wage jobs) our children's parents clearly ranked well below the middle of the scale with 57% of families at levels 6 or 7 and with a group average of 6.

We carried out extensive analyses of the role of SES in predicting various children's scores, e.g., initial play behaviors, scores on the School Readiness Measures, frequency of game play by parents. While it is clear that lower SES is consistently associated with lower performance by the children, our random assignment avoided any systematic distortion in relative SES weighting for the Experimental and Control Groups.

A final demographic measure was the age of parents. The average age for mothers was 31 and for fathers 35. For most of these families the children in our study were among the youngest of a group of children. Our inquiries led to the conclusion that on the whole, parents' comprehension of the value of early child care or parents' commitment to a program like Head Start emerged over time. In effect more "experienced" parents were making efforts for early child care in these settings. Very young mothers or newly-formed families seem to have been somewhat under-represented in the research sample. This will be addressed in recruiting participants for Year Two research.

SUMMARY: Our research sample was clearly Inner City, poor and reasonably representative ethnically of the kind of socioculturally and educationally disadvantaged group we had sought.

With respect to the question of their recognition of the value of imaginative play, our inquiries of parents during training sessions made it clear that this sample was unaware of the utility of fostering children's play. Almost unanimously, they reported that their own parents had not played with them when they were children (except for sports).

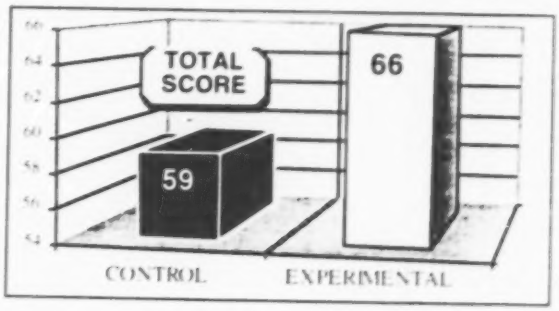
Finally from the standpoint of our intervention evaluation, the Experimental and Control Groups were well matched on all these demographics. We will subsequently examine, however, for our total sample of participants what combinations of demographic variables and specific reactions to training (e.g., frequency of game playing) best predict intervention effects on the relevant variables.

## 2. Comparing the Experimental and Control Groups after Play-Training Sessions for Parents

### a. School Readiness Measures

### i. Gains in Total Score

Initially, as indicated above, the Experimental Group (N=39) and Control Group (N=47) did not differ significantly on any of our measures following random assignment to these groups. However, after Experimental Group parents were trained and engaged their children in the learning games for just two weeks, there was a clear trend for higher scores on the Total School Readiness Measure for the Experimental Group children, who attained an average score of 66 (SD=16) compared with 59 (SD=15) for the Control Group ($p<.05$).



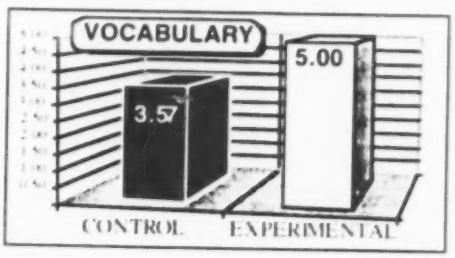

These results emerged as even more strongly significant when the initial differences prior to intervention where taken into account by analyses of covariance.

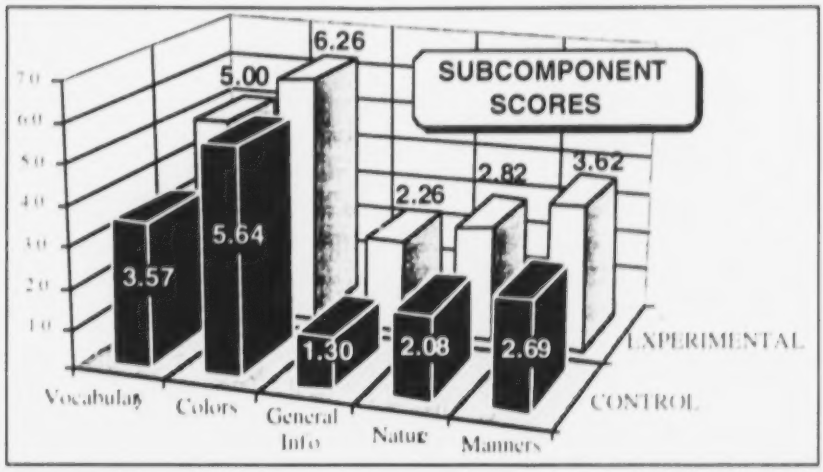
### ii. Gains in Subcomponent Scores

When we examined the effects of the intervention on the subcomponents of the School Readiness measure we found that while the Experimental Group showed higher average scores for almost all of the subtests, e.g., Shapes, Colors, Emotions, Counting, etc. our clearest effects emerged for the following variables:

| | | |
|---|---|---|
| Vocabulary: | Experimental | = 5.00 (3.43) |
| | Control | = 3.57 (2.47) $p<.05$ |
| Knowledge of Colors: | Experimental | = 6.26 (1.33) |
| | Control | = 5.64 (.80) ($p<.10$) |
| General Information: | Experimental | = 2.26 (1.31) |
| | Control | = 1.30 (1.13) $p<.05$ |
| Nature Knowledge: | Experimental | = 2.82 (1.65) |
| | Control | = 2.08 (1.33) $p<.05$ |
| Good Manners Knowledge: | Experimental | = 3.62 (1.58) |
| | Control | = 2.69 (1.71) $p<.01$ |

Improvements in vocabulary are especially important since vocabulary and language usage correlate best with general intelligence measures and have been shown to be particularly relevant to school readiness.






Children showed measurable, but less significant gains in counting skills and recognition of emotions despite inclusion of these skills in the games and parent-training materials. This finding is useful in suggesting a need to strengthen those areas in the revised training materials we will develop in Year Two of the project.

SUMMARY: For the full group of children across all ages, family SES levels and sex of child, we have found significant improvement in the children's scores on our general School Readiness Measure and especially on its components of Vocabulary, Nature Knowledge, General Information, and Knowledge of Good Manners after their parents had received training in imaginative play.

As indicated above, for ethical reasons, after training and testing the Experimental Group, we then offered play-training to parents in the Control Group. Our data from testing the children in that group indicate comparable improvements above their previous scores for these original Control Group children on Total Scores and on subtests for Vocabulary and Knowledge of Good Manners.

**b. Observational Variables**

Year One testing also included measuring four types of behavior by the children prior to and following their parents' exposure to training. These variables were Imaginativeness of Play, Positive Emotionality (smiling, laughing, interest, curiosity), Persistence at Tasks and Cooperation with Peers and Teachers.

We carefully trained the raters and observers to ensure reliability of their scoring of the children's overt behaviors. Two independent raters conducted at least two, ten-minute observations of each child on separate days.

Our data demonstrated reasonable agreement between the independent raters in describing and scoring these behaviors. Statistical analyses indicated across all demographic breakdowns that Imaginativeness of Play was significantly correlated with Positive Affect, Cooperation and Persistence, confirming findings from our earlier studies. These Observational variables also showed consistency across time in the play of our child sample. Imaginativeness of Play was also marginally significantly correlated with children's School Readiness Total Score.

Observational data also indicated an important consideration for the training materials we will develop in Year two. The play protocols recorded by our observers indicated that children in the daycare settings did not seem to be playing the learning games (Restaurant Game, Submarine Game, etc.) they had played at home with their parents.

One possible explanation is that just two weeks of exposure to play with parents who had themselves no personal experience of parent-child imaginative play may have been too limited for children to assimilate these specific games into their repertoire of activities. Our earlier training studies with children had involved far more intensive parent-training (D. Singer & J. Singer, 1990).

However, a more important implication relates to the training of daycare staff. For experimental purposes, daycare teachers in our study were purposely kept "blind" to our parent-training procedures; and it was our impression that most of the workers in these daycare centers did not appreciate or utilize imaginative play as an avenue towards school readiness. A good deal of earlier research clearly indicates that direct training of daycare teachers in imaginative play techniques can lead to gains in children's' school-readiness skills.

Therefore, we can conclude that the revised program we will produce in Year Two should include training components for daycare workers, so that activities in the preschool setting can work in synergy with at-home play activities to enhance children's read-to-learn skills.

**4. Multiple Regression Analyses – What Factors Best Predict Children's Gains after Parent Training?**

We conducted very extensive further analyses using multiple regression statistics to determine what combinations of demographic, intervention and game-playing features best predicted gains on our School Readiness measures.

What emerged clearly from these statistics was that older children did better than younger ones, that children whose mothers were somewhat higher in socioeconomic status performed better after training.

Of special significance was the sex of the child. When we conducted multiple regression analyses separately for boys and girls what emerged clearly was that girls showed more gain than boys.

For example, the combination of variables of Older Age (4 year olds), higher SES for Fathers, and Parent Training yielded an R-square (adjusted) of .64 as a predictor of Post-Intervention Scores on School Readiness for girls. Similar results emerged for General Information, Good Manners and Vocabulary.

Both boys and girls showed post-intervention gains in school-readiness skills; however, since girls showed greater gains than boys, this suggests that we should modify our training approaches and materials in Year Two to include elements that can prove more effective with preschool children of both sexes.

## 5. Quantitative and Qualitative Findings on Parent Reactions to Training and on Games Played with Children.

### a. Parent Reactions During Training

Despite some of the stresses faced by parents in attending our training sessions (e.g. rearranging work schedules, obtaining transportation, several heavy thunderstorms), the reactions of the attendees were almost unanimously positive. For most of the parents the importance of imaginative play for preschool children came as a kind of revelation. They realized the importance of such activity which most had missed out on or had developed only at later ages. There were frequent spontaneous remarks about the novelty of this concept and its relevance to developing school readiness skills.

The parents were quite receptive to the "beta" (test) versions of our printed manuals, *INSTRUCTIONS: Games to Play with Your Child.* and *MATERIALS: Things to Use for Playing the Games.* Some parents — especially those for whom English is a second language — had initial problems with particular words in the manuals, but they quickly overcame these obstacles during the training sessions.

The "beta" version of the training video was extremely well received. Parents were totally caught up in following the narration and clearly enjoyed viewing the real children in the play segments. Parents were also quite helpful in suggesting modifications for the revised training video we will produce in Year Two (see appended session notes). For example, some parents suggested they would prefer a less formal, more "playful" presentation by the on-camera narrator.

While the overall reaction to the training was excellent, it was clear from our subsequent statistical analyses of the parents' reports of their weekly play with children that certain games were more extensively used than others and that cultural backgrounds played some role in game choices. While the parents were generally quite candid during training sessions, they did not refer to ethnic differences in these sessions. Such differences did emerge clearly from their weekly logs of the games they chose to play with their children (see below).

### b. Parents' Daily Logs of Play with their Children

At the first training session parents received forms to record their daily play activities during the next week. Follow-up phone calls from the staff encouraged them to bring the completed forms to the second training session. At the second training session parents were asked to describe their play experiences during the first week, and they also received a new set of log forms with stamped, addressed envelopes. Phone calls were again made to parents. Eventually two sets of logs were received from nearly all participants in the first phase of training and then from the prior Control group once they had received training.

Parents' verbal reports about their play experiences and their comments when receiving reminder phone calls provided a valuable source of qualitative data. Parents written logs were scored and provided quantitative data for statistical analyses. (Sample logs are appended.)

These data indicated that practically all the parents made serious efforts to play with their children using the games suggested in the training video they had watched and the written materials they had received. The almost unanimous response was surprise and delight at how much enjoyment their children showed by the opportunity to have imaginative play initiated by the parent(s). Parents were pleased that children readily engaged in the games, wanted to play them repeated, tried to involve siblings or friends in the play and seemed to "catch on" to the cognitive and social skills embedded in the games.

Many parents showed resourcefulness by using the Travel games (Submarine, Bus) in actual transportation situations, e.g. as they drove the children home from daycare or sat on a public transport bus.

Parents also reported that children introduced their own variations into the games and also sought to relate games to actual events. A number of children tried to relate the Restaurant game to actual visits to diners or fast-food settings. Others tried to extend the submarine game to a Pirate episode, or the Bus to the Zoo game to an Aquarium trip. After playing the Bus game, which includes visiting a pretend library, several children actually asked parents to go to a "real" library, where they obtained library cards and were amazed to find the wealth of resource material they could borrow free.

The training sessions evoked other useful talk about times and places for play. One mother from a Head Start center who had missed the first training session reported angrily that her stress of getting to and from work and settling her children in daycare plus household maintenance precluded her opportunities for play. Several parents pointed out to her how easily she could play the Submarine game at bath times and incorporate other games as part of bedtime rituals. In her subsequent log report and phone conversations this woman reported how delighted she had been by her child's response to the mother's initiating play and how she had found a number occasions for enjoyable play interactions.

Some parents called attention to the fact that the games opened the way to discussions of safety (which was not emphasized in our training materials). The Bus game especially encouraged parents to incorporate references to safe-behavior, e.g. seat-belts, not running or pushing while on a bus, and watching one's entrances and exits.

The amount of time spent on play varied widely. The time spent ranged from 10 minutes to 45 minutes a day, with many parents reporting 15-20 minutes of such play a day. From a quantitative standpoint the frequency, variety or actual time spent playing with children were not in themselves significant predictors of higher Experimental Group scores on the School Readiness measures.

Variations by ethnic group and qualitative intensity of play seemed more relevant. In general, English-speaking parents played games with more frequency than did Latino parents.

Certain games seemed more attractive to different families.

The Restaurant game, which our prior experience shows to be most widely used, popular and seemingly easy to engage in, was overall the most often played for our sample. But our data also indicate that the Restaurant game was more frequently employed by English-speaking parents, while the Seasons game (overall the least played) were especially popular with Spanish-speaking parents. Could this have reflected the fact that in the training video participants for the Restaurant game were a European-American family, while the video sequence of the Seasons game featured a Spanish-named, dark-skinned "father" and child? Could this difference also have reflected the fact that most of our Spanish-language respondents were of Puerto-Rican background and had come relatively recently from more rural, agrarian settings similar to those of the Seasons game?

In response to feedback from parents in the initial Experimental Group, during Year One we produced a new video segment of the Submarine game for use in training Control Group parents. The revised segment featured an African-American family, since Experimental Group parents had felt that the "parent" in our original video sequence of this game (an Asian-American preschool teacher) seemed somewhat stiff and did not evoke sufficient identification by our parents. Despite these concerns, the data indicated that the original version of the Submarine game was used extensively by Experimental Group parents with reports on their logs of good follow-up by children.

SUMMARY: Quantitative and qualitative data clearly indicate that parents responded positively to the training sessions and materials, and used the training to engage their preschoolers in imaginative play that led to measurable gains in their children's school-readiness skills. A review of parents' responses to the training materials strongly suggested which types of imaginative games to retain and which to replace in the revised version of the training materials that we will produce in Year Two. On the whole the more action-oriented games, e.g., Bus to the Zoo, Submarine to the Ocean Floor and Restaurant Game, were more regularly used by a considerable majority of parent-participants, and their links to our School Readiness measures were more clear.

## C. Conclusions and Recommendations for Year Two of Project

### 1. Conclusions from Research Data

#### a. Effects of Parent-Training on Children's School-Readiness Scores

Although our budget allowed only two parent-training sessions and only two weeks of parent-child play prior to follow-up, we did find significant differences between our Experimental and Control children from low-income families in their total School Readiness Scores and especially in their Vocabulary, Knowledge of Good Manners, General Information and Nature Knowledge. These data suggest that the types of play training methods and materials tested in Year One of this project can have a significant impact on the ability of low-income parents to enhance their children's cognitive and social skills needed for effective school entry.

### b. Effects on Children's Spontaneous Play and Related Behavior at Daycare

We did not find evidence that children were carrying over to the daycare settings the enjoyment and engagement with the imaginative games which they had played at home with their parents. Our examination of the play protocols of the children before and after our parent-training intervention indicate that daycare workers were not sufficiently active on their own in establishing an imaginative play atmosphere in their settings. This seemed to be the case even though slogans on the walls called attention to the importance of dramatic play. It is likely that lacking teacher involvement, the children did not perceive that their home play could be carried over.

Since we know from a good deal of earlier research that direct training of daycare teachers in imaginative play techniques can enhance children's outcomes, we can conclude that our revised procedures and materials should include training components for daycare workers.

We recognize from this study that some of our parents, especially the poorest socioeconomically, might not fully comprehend the central issue of play training — i.e., such activities are designed not primarily to teach specific new words or general information, rather, through imaginative play children should be able to develop a skill for further, more exploratory and self-directed play that can lead both directly and incidentally to enhancement of school readiness abilities.

Therefore, we need to communicate this goal of play between parent and child more strongly in our next version of the training procedures and materials.

### c. Modifications of Training Materials

Both our statistical and qualitative analyses have indicated positive overall reactions to the "beta" version of the program, and have suggested some revisions in our demonstration games and in our training video and manuals. Therefore, the revised video and print materials will retain the most effective games, and will augment them with new, additional games and training materials to address needs indicated in Year One research findings (see below).

## 2. Recommendations for Second Year of Project

### a. Research Design

As indicated in our original proposal, we plan to repeat testing with suitable modifications to our training procedures in at least two separate national sites.

For practical purposes, our more elaborate Year Two research design will be carried out in the New Haven area, but a more qualitatively-evaluated project of parent and teacher-training will be essayed in two other locations.

Following upon the findings reviewed above, we propose the following design for Year Two testing in the New Haven area.

In order to assess the effectiveness of different approaches using our revised materials for training both parents and daycare workers we will randomly assign children to one of four groups:

(1) Parent-Training for Imaginative Play (Experimental Group 1)

(2) Teacher or Daycare Worker Training for Imaginative Play (Experimental Group 2)

(3) Both Parent and Teacher Training Combined (Experimental Group 3)

(4) Untreated Control Group (for ethical reasons, to be offered training after conclusion of the Experimental-Control Group comparison ).

Our predictors are that we should at least replicate the findings of our first year study with Experimental Groups 1 & 2 and that we should obtain even stronger results both in School Readiness scores and in evidence of increased within-school imaginative play for Experimental Group 3.

Our procedures will be comparable to the first year study with certain exceptions, reflecting what we learned from that work. Thus, we will modify the School Readiness Measure to improve variability and game-relevance of items so as to avoid "ceiling" effects or items too simple for three and four year olds.

We will modify our demonstration games based on our parent log data and training session feedback (see above). Thus, we will expand the games to include lively, action-oriented storylines appealing to children of both sexes across cultural groups. We will strengthen the counting and arithmetic components of the games as well as revising appropriately our testing procedures.

We also plan to revise our training procedures and materials to help parents and daycare workers better understand the general value of imaginative play beyond the specific games we have suggested. We will emphasize that when a child incorporates play as an autonomous resource, this can have long-standing value for a variety of school-readiness skills such as self-regulation and planning.

The revised training materials we will develop in Year Two will also include training components and guidelines for facilitators who will present the program to low-income parents/caregivers and daycare staff.

For the extra-New Haven phase of our Year Two research will focus on testing the extent to which the revised training methods and materials (video and print) are "portable", and can be prove effective in other demographic and geographic settings. This testing will rely more heavily on facilitator, parent and teacher feedback and on naturalistic observations of the school atmosphere, since our budget precludes establishing elaborate teams of field observers in all settings. We can, however, assess whether there are general cultural or regional differences in the reactions to our training procedures and materials.

We will also include evaluation instruments with the 2,500 free copies of the training materials we will disseminate later in Year Two to organizations that serve low-income families.

### b. Revised Training Materials and Procedures

The revised, expanded video and print training materials we will develop, test, refine and nationally disseminate in Year Two will retain the most effective features of the "beta" version of the program, and augment them with new components to address modifications indicated in Year One testing.

Year One research suggested that the more active games (e.g., Restaurant, Submarine) proved more generally effective in engaging families and in enhancing children's school-readiness skills, while less active games (e.g., Seasons) were effective only with a small number of parents. Therefore, the revised training materials will retain these active games, and will supplement them with new, additional games which create a lively, imitatable atmosphere.

Children's test scores indicated significant gains in skills such as vocabulary and knowledge of good manners, but less significant gains in counting skills and recognition of emotions; therefore, the revised program will incorporate play activities to strengthen those skills. Test results indicated that girls made greater gains than boys; therefore the revised program will include elements designed to effectively engage both boys and girls. Also, parents expressed a wish to incorporate issues of physical safety into the games and training materials.

The revised program will include components to train childcare staff in the importance of imaginative play and ways to incorporate the learning games into preschool settings. It will also include guidelines for the facilitators who will present the program to low-income parents/caregivers and daycare staff.

### c. Summary

In Year One of this project we developed a "beta" version of a video-based program to train low-income parents caregivers to engage 3-5-year-old children in highly motivating play techniques which have been shown to enhance children's school readiness skills. Year One testing with low-income families resulted in measurable gains in children's school-readiness skills and provided guidelines for program enhancements. In Year Two we will develop and test a revised, expand version of the program, and nationally-disseminate 2,500 copies of the empirically-tested, easily replicable program to organizations that serve low-income families with preschool children.

## References


Freyberg, J.T. (1973). Increasing the imaginative play of urban disadvantaged kindergarten children through systematic training. In J.L. Singer *The Child's World of Make-believe*. New York: Academic Press, pp. 129-154.

Singer, D.G. & Singer, J.L. (1990). *The House of Make-believe: Children's Play and the Developing Imagination*. Cambridge, MA: Harvard University Press.

Smilansky, S. (1968). *The Effects of Sociodramatic Play on Disadvantaged Preschool Children*. New York: Wiley.

# APPENDICES

1. LIST OF PARTICIPATING SCHOOLS
2. DATA ON EACH CHILDCARE CENTER
3. PARENT INFORMATION FORM
4. NOTICE TO DIRECTORS ABOUT RESEARCH ASSISTANTS
5. NOTICE TO PARENTS ABOUT TRAINING SESSIONS
6. PRETEST INSTRUMENT
7. BEHAVIORAL VARIABLES DESCRIPTIONS
8. SAMPLE OBSERVATION PROTOCOL
9. OBSERVATION PROTOCOL FOR RECORDING DATA
10. VARIABLE RATING SHEET
11. PARENT RECORD OF GAMES PLAYED WITH CHILDREN
12. PARENT FEEDBACK OF GAMES PLAYED, COMMENTS ON MATERIALS

# Participating Schools

*1998*

**West Haven Child Development Center-100**
201 Noble Street, West Haven, CT 06516
**Director:** Patrice Farquharson
**Phone:** 932-2939

**The Early Learning Center (Gateway)-200**
60 Sargent Drive, New Haven, CT 06511
**Director:** Eileen O'Donnell
**Phone:** 789-7072

**West Haven Head Start-300**
227 Elm Street, West Haven, CT 06516
**Director:** Linda Michaels
**Phone:** 934-5221

**Lulac Head Start-400**
375 James Street, New Haven, CT 06513
**Director:** Abel Pardo
**Phone:** 777-7501

**United Community Nursery School-500**
323 Temple Street, New Haven, CT 06511
**Director:** Betty Baisden
**Phone:** 782-0141

## Data on Center

**Director** _____
**Center** _____
**Address** _____
**Phone** _____
**Fax** _____

**Letter of Agreement Returned** _____

**# of Information Forms Returned** _____

**# of Consent Forms Returned** _____

**Children's List** ___ (attach list)
# of 3-years_____ # of 4-years_____ # of part-time_____ # of spec. need_____

**Insurance Needed** **No** **Yes** **Amount**_____

**# of Meals Needed** _____ **Drink** _____

**Dates of Training & Times** _____

**Staff in attendance:**

(1) **Name** _____
**Address** _____
**S.S. #** _____
**Payment** _____

(2) **Name** _____
**Address** _____
**S.S. #** _____
**Payment** _____

(3) **Name** _____
**Address** _____
**S.S. #** _____
**Payment** _____

**CODE NUMBER:** _____

**DATE:** _____

**Parent Training Project**

## PARENT INFORMATION

Child's Name: _____

Sex: M F

Teacher: _____

Exact Date of Birth: ___/___/___

City: _____

Ethnic Group: (check one)

___ Caucasian
___ African-American
___ Asian-American
___ Hispanic
___ Native-American
___ Indian (India)
___ Other (specify) _____

Child's Primary Language: _____

Parent's Primary Language: _____

Father's Name: _____ Exact Age in Years: _____

Mother's Name: _____ Exact Age in Years: _____

Father's Specific Occupation: _____

Mother's Specific Occupation: _____

* An exact occupation is needed--a company name alon eis insufficient.
Example: K-Mart--cashier or floor manager or stockboy, etc.
City Hospital--nurse or secretary, etc.

Parent's Marital Status:

___ Married
___ Divorced
___ Widowed
___ Separated
___ Other _____

Siblings (List Ages): Males _____

Females _____

Yale University

*Department of Psychology*
*P.O. Box 208205*
*New Haven, Connecticut 06520-8205*

*Campus address:*
*2 Hillhouse Avenue*

January 28, 1998

Dear Director:

We are excited about our project and pleased with your cooperation. Enclosed are

1. a list of research assistants, and
2. a list of schools participating.

A schedule will follow shortly.

When a tester completes work for the day, he or she will tell you what has been done with each child. You can simply check it off on your schedule so that you know the status of the children.

If you have a calendar for the spring term, we would appreciate receiving a copy if you have not already given it to me. I will be in touch as pre-testing draws to a close to discuss training dates and food arrangements. I also will prepare a notice about training dates that you can distribute to your parents. A staff member will drop these off for you to distribute. In the meanwhile, thank you again.

Sincerely,

Dorothy G. Singer, Ed.D.
Research Scientist
Department of Psychology
Yale University

**Readying Your Child for School**

The Early Learning Center will be cooperating with Yale University in a *Parents Learning Project* that we believe will help you to prepare your children for school and will be fun for you and your child. The *Project* involves the following:

- **Your Participation** in two Parent sessions; each is two hours long during March
- **When** - at the end of the Early Learning Center Day (6-8pm for each session)
- **Supper** will be provided at 5:30pm before each session begins (for you and your child or children).
- **Staff** will care for your child while you are trained. You will then play these games at home with your child for two weeks and keep a record.
- **Payment**--$75.00 for attending the two sessions
- **Fill out the two forms** if you agree to participate and return them to Mrs. O'Donnell by December 15, 1997.
- **Children** will be interviewed during the month before your training begins and at the end of your training and a month later.
- **All information will be kept confidential**. All materials will be coded to protect both your child's and your identity.

# Yale Family TV Center 1998 Parent Training Project

**Interviewer** _____ **School** _____

**Child's Name** _____ **Child's Sex:** ❑ FEMALE ❑ MALE

**Child's Code Number** _____ **Child's Total Score** _____

## PRE-TEST

### I. COUNTING

| | |
|---|---|
| 1. Score ☐ | 1. How old are you? _____ |
| 2. Score ☐ | 2. Can you write the number? (*Child writes on back of booklet.*) |
| 3. Score ☐ | 3. Count for me. (*Record numbers as the child says them.*)<br>*Record highest number: Score only if in order.*<br>__ __ __ __ __ __ __ __ __ __ __ __ __ __ |
| 4. Score ☐ | 4. Count these beads (10). _____<br>(*Score only correct number.*) |
| 5. Score ☐ | 5. Match these numbers. (*Use the numbers on the cards for display.*)<br>10 ____ 6 ____ 1 ____<br>3 ____ 8 ____ 4 ____<br>5 ____ 2 ____ 7 ____<br>9 ____ |

### II. SHAPES

| | |
|---|---|
| 6. Score ☐ | 6. Name these. (*Show the three shapes. Check only if correct.*)<br>Circle ____ Triangle ____ Square ____ |
| 7. Score ☐ | 7. Point to... (*Show full display of all shapes.*)<br>a) Circle ____ f) Square ____<br>b) Square ____ g) Triangle ____<br>c) Triangle ____ h) Circle ____<br>d) Circle ____ i) Square ____<br>e) Triangle ____ |

## III. COLORS

**8. Score** ____

8. Point to the balloon that is the right color:

a) Blue ____ e) Yellow ____
b) Red ____ f) Green ____
c) Purple ____ g) Brown ____
d) Pink ____

## IV. INFORMATION

**9. Score** ____

9. Can you tell me...

a) Where do we go to see animals in cages? _____
b) Where do we go to borrow books? _____
c) Where do we go to buy a meal, like lunch, and use a menu?
_____
d) How do we go to the bottom of the ocean? _____

## V. ANIMALS

**10. Score** ____

10. Point to the ... a) Zebra ____ d) Tiger ____
b) Lion ____ e) Elephant ____
c) Monkey ____ f) Giraffe ____

## VI. EMOTIONS

**11. Score** ____

11. Show me faces: a) Happy ____ d) Angry ____
b) Angry ____ e) Sad ____
c) Sad ____ f) Happy ____

## VII. NATURE

**12. Score** ____

12. Can you tell me...

a) Who lives in a tree? _____
b) Who lives in water? _____
c) What season do we have now? _____
d) Can you name other seasons? _____

## VII. MANNERS

**13. Score** _____

13. Can you tell me …

a) What do we say when (remember, be polite), we bump into a friend by accident? _____

b) What do we say when you want another cookie? _____

c) What do we say when your mother gives you another cookie?

_____

d) What do we say when your teacher is talking to another child, and you want to talk to the teacher? _____

(e) What do you say or do when you want to use the swing, and another child is on it? _____

## IX. VOCABULARY

**14. Score** _____

14. Tell me what these words mean or what these things are:

a) submarine _____

b) medal _____

c) map _____

d) ocean _____

e) garden _____

f) menu _____

g) explorer _____

h) bus _____

i) treasure _____

j) brave _____

k) waiter _____

| SCORES: | 3. _____ | 6. _____ | 9. _____ | 12. _____ |
|---|---|---|---|---|
| 1. _____ | 4. _____ | 7. _____ | 10. _____ | 13. _____ |
| 2. _____ | 5. _____ | 8. _____ | 11. _____ | 14. _____ |

**TOTAL SCORE** _____

**Parent Training Project**
**Spring, 1998**
**School** _____

**VARIABLES**
**Code #** _____

Each variable is rated from 1 through 5 (5 is high).

**BEHAVIORAL VARIABLES**

## Play Research Project
## Instructions for Observers and Raters

### I. The Nature of the Project

This study involves two major phases:

A. *Direct Observations of the Spontaneous Play Behavior of Preschool Children*
This phase requires a number of careful recordings of exactly what the child does and says during specific time periods on a number of occasions. The emphasis is upon careful reporting and recording without interpretation or evaluation. The protocol of the play behavior during the sampling period then becomes a basic source of data for further analysis in a number of ways described. By having separate observers record the behavior of each child at a given period we increase the chances of accurate recording.

B. *Ratings by Independent Judges of the Protocols of Play*
Here the task is to read and reread the protocol also trying to recall (if the rater was also an observer) the actual scene and appearance of the child and then to rate the behavior along certain preestablished dimensions. These rating scales represent schemes for categorizing the natural flow of a child's behavior for purposes of comparison with its behavior at other times under other circumstances, before or after certain experimental interventions, etc. Our goal in setting up these particular ratings is to choose specific behavior categories that may have important theoretical interest. As long as we have the records of the children's behavior in detail from at least two observers we can always go back to them and score them along additional scales as these are developed or suggested by the research of other investigators.

### II. A Critical Feature in Observing and Recording Is Thoroughness

We need as much detail as possible on what the child does and says during the 10-minute observation period. This recorder should try to be as impersonal as a camera--this is no time for analysis and interpretation. Psychology is too full of people who jump to interpret without looking carefully at what actually goes on. Recording then should give a moment-to-moment account of the child's movements around the room, its comments, and the specific emotions displayed. In the case of emotions try to be objective and limited--don't assume that because a child pounds on a block he or she is angry. The child may be laughing and *that* is the emotion to record. The interpretation of underlying anger can come later if at all during ratings. Just indicate if the child laughs, cries, whines, moves slowly, hits another child, breaks a toy apparently intentionally, etc. Examples of

10-minute duration recordings of the same child at the same time by two different observers are appended here as examples. Read them carefully and look at their similarities and differences. The care of recording is important becasue the protocols may later be rated by persons who have not actually observed the children as you have.

Work in *pairs* so that we always have at least two independent records for each child at each observations period.

Write the observations out carefully on the protocol sheets making sure you record the child's name, time and date of obseration. Remember to write your own name on the protocol as well. Use ink if possible because others may be reading your protocol. It would be best if you could retype your protocol afterwards but this will not be required if you are not a good typist.

Record how the child is dressed, general appearance, any mannerisms. Important that you and your partner observe the *same* child at the same time. Do not observe a structured period (e.g., snack, group singing). The children will be rated--twice during two separate two-week time intervals.

## III. Instructions for Ratings

There are several types of ratings that are to be done in this study. The scales are presented in the following with definitions of each scale point from one to five with five representing the "high" end of the scale. Review the protocol carefully looking for examples of each level. Naturally the child may change from time to time. We are interested in your evaluation of the overall pattern and predominant direction of its behavior with respect to each dimension. Don't be afraid to use a full range of scores rather than sticking conservatively to the middle. After rating a few protocols you may want to go back and revise earlier ratings based on broader experience with more children in the group. Under no circumstances must you consult with your partner until *after* your rating is set down, however; the ratings must be completely independent. If you do have some strong reservations after both of you have done your ratings then write a little note and attach it to the rating sheets.

## SCORING CRITERIA--PLAY OBSERVATIONS
## SCALES FOR FIRST PHASE

### I. Imaginativeness in Play

*Score*

1. Is extremely unimaginative in play. Introduces no pretend elements into the play situation. Extremely stimulus-bound by the play materials.

2. Is slightly imaginative in play, occasionally introducing fleeting pretend elements into play situation, but does not stay with any pretend situation very long. No originality in pretend situations. A few pretend elements added to otherwise very stimulus-bound play. Picks up pretend elements from others but adds little of own to same.

3. Shows a moderate amount of pretending in play, but not very original

or removed from the actual stimulus situation. Little organization or consistency of pretense or role-playing. No voice changes or simulated vocalizations.

4. Shows a substantial amount of pretending in play, spontaneously creating make-believe situations, showing some originality in pretending, following out sequences of plot. Some organization and consistency in pretense or role-playing, including some simulated vocalizations.

5. Shows high originality in the ways toys and play material are used. A very high number of pretend elements in play. Is able to go well beyond what the play stimuli in themselves suggest. Multifaceted focused play, divergent thinking shown from routine games or activity.

**II. Positive Affect**

(Note that *mild surprise, interest, and joy* are viewed as positive affects and scored high.)

*Score*

1. Shows no interest or pleasure in the toys, play, or other activities; much tangential behavior, conversations with observer, teacher, and others; critical remarks about toys or activities; no smiling, laughter, or evidence pleasure in playing.

2. Shows only mild pleasure and interest in toys of activities; much looking around and/or desultory manipulation of play material. Occasional smiling or laughter.

3. Shows moderate interest, pleasure, and enjoyment of activities and toys; communicates easily about the play activities; somewhat lost in quiet enjoyment, some smiling and/or laughter during activities; some animation.

4. Shows deep pleasure and interest in play activity, smiling or laughing frequently. Expresses frequent pleasure, describing it spontaneously or manifesting it in the content of play objects.

5. Shows extreme delight; laughing, singing, smiling; thoroughly enjoying self, reluctant to leave play situation; interested and curious about environment--explores it with delight or enthusiasm; seems to show mild surprise and interest in novelty.

**III. Persistence (Concentration)**

*Score*

1. Shows brief or little attention to or absorption in activities; aimless wandering, high distractibility, many questions to teacher; responding to noises or talk of children in room. Hyperactivity with no real interaction with play material.

2. Engages in superficial play with toys and play material while looking around the room, staring passively, talking to teacher, or wandering

aimlessly. Changes toys and/or activities frequently.

3. Responds with moderate interest to the toys or play activities. Changes activities two or three times during the 10-minutes segment. Some distractibility. Some responses to outside stimuli such s noises and the talk and play of other children.

4. Shows good absorption to play activity, very little response to outside stimuli, change of activity once or twice during 10-minute segment; no tangential behavior or conversation pertaining to activities other than the one at hand.

5. Shows intense absorption in play activity; stays with one activity for most of observation period, oblivious to outside stimuli, may not even respond to direct questions from teacher or children not included in the play situation at hand.

## IV. Cooperation, Helping, and Sharing with Peers

*Cooperation* occurs when a child helps another child to build something, or to hold an object, or in cooperating in taking an *active, sharing, service role*. For example, to be rated as *cooperative* a child's behavior indicates more than mere contact; i.e., child helps another child in sharing a game either by assuming a role or assisting in a construction in order to enable a game to be mutually satisfying. For example, a cooperative activity occurs when two or more children are sharing a mutually satisfying end-product or sociodramatic game, a construction or activity for the teacher, e.g., cleanup, collecting toys, distributing food.

The following are examples of *cooperation*:

1. Your subject gives materials to another on his own initiative or in response to a request ("Would you want my crayon?" "Here, let me hold this for you.").
2. Your subject participates in a game that needs the subject's cooperation, i.e., holding hands in "Ring-around-the-Rosy."
3. Your subject actively assists in block building with others, i.e., helping to construct an "airplane," or a "garage," etc.
4. Your subject assists in cleaning up.
5. Your subject assists in role-playing in games such as "house" or "pirates" in order to carry out a story line, assuming roles such as "Mommy," "Daddy," "Captain Hook," etc.
6. Aids another child in distributing or collecting materials, or in dressing or undressing, etc.

*Score*

1. NA--(1) No opportunity presented to elicit this behavior.

2. Show no cooperative or helping behavior. Refuses to cooperate in play or in other interactions with adults; fails to obey instructions and requests of adults. Shows negative affect when an adult issues a request.

3. Shows a moderate amount of cooperation and mild interest in helping. Cooperative behavior is usually not spontaneous; depends on external peer suggestion or physical stimulus.

4. Shows slightly more cooperation and desire to help. Begins to initiate own cooperative behavior. May offer to share materials for a game.

5. Cooperates willingly and enthusiastically; exhibits spontaneous helping behavior toward peers. Seeks out situations where child cn be of service to peers.

**Sample Observation Protocol**

**Code Number** _____
**Date** _____

***Play Research Project***
***Observational Record***

Dorothy G. Singer
Jerome L. Singer
1998

Child's Name _____ Sex ____
Observer's Name _____
Observation Period 1 2 3 4

*Physical Appearance and Clothing*

*Ten-Minute Sample*

Time Begun _____ Time Ended _____

Start writing here:

Sitting at the play kitchen corner, playing with phone. Looks over at Dan (oberver) and then at me. Looks over to the other kids. "Ring, ring, Sweetheart you should be home now, dinner's ready. I want to know if you'll come home now." "Yeah." She hangs up. Playing phone with other girl. Hangs up a mop on the hook. Holds a cake pan and looks around the room. "I was gonna make some." Starts taking the pots out of the cabinet. They are playing house. "I'll make it, sweetheart." Smiling slightly, very involved in her game. Takes pot and puts it on the stove. Goes in the cabinets looking for stuff and putting other pots and pans away. "I'm gonna take the baby for a ride." Pushes cart aroudn the room. Goes over to where the boys are playing. Looks at what the other boys are doing. Stands pushing the carriage back and forth. Not smiling, shuffling, appears restless. Picks us pocketbook that fell. Puts it over her shoulder. "I know its apple pie." Looks around the room (5'). Goes back over to the kitchen corner. Takes out pots, scrapes ladle across the pan. Looks at the Observer. Scrapes the pan with the ladle. Does this approximately a dozen times. Watching O's write down what she's doig (6'). Goes back to cabinet, opens it, and puts that pot away, then another. Playing alone now. Puts the "tea pot" on the stove. Ladles a deeper pot. Stops and stares at the Observer, again putting objects in the cabinet. Takes another pan out of the oven and puts it back in the cabinet. Not playing with any other kids. "Two apple pies, two apples pies I made." Teacher tells kids to "freeze" because some boys are being rough. Betty has the ladle in her mouth. "Freeze" is over. Betty gets the doll carriage again. (9'). "Do we have to pick up?" to teacher. Teacher says no. Looking around, ladle in mouth. Looks at other kids. Goes back to kitchen corner. Betty is now playing the mother in a new game of house. "Here's some lemonade" (2X) "I made some lemonade." Smiles infrequently throughout observation, spotty periods of concentration during house game.

**Observation Protocol**

**School** _____ **Code Number** _____
**Date** _____

***Play Research Project***
***Observational Record***

Child's Name _____ Sex ____

Observer's Name _____

Observation Period 1 2 3 4

*Physical Appearance and Clothing*

*Ten-Minute Sample*

Time Begun _____ Time Ended _____

Start writing here:

**Variable Rating Sheet**

*Play Research Project*
*1998*

**School** _____ **Code Number** _____

**Observer** _____ **Date** _____

**1. Imaginativeness in Play**

1 ____
2 ____
3 ____
4 ____
5 ____

**2. Positive Affect**

1 ____
2 ____
3 ____
4 ____
5 ____

**3. Persistence**

1 ____
2 ____
3 ____
4 ____
5 ____

**4. Cooperation**

1 ____
2 ____
3 ____
4 ____
5 ____

## Record of Games Played
### Week ___

Child's Name _____

Parent's Name _____

Code # ____

Name of Day Care Center _____

Date Began ____/____/____

Date Completed ____/____/____

Teacher's Name _____

**Put a check under the game on each day you played it:**

| | Seasons: Spring | Travel: Submarine | Travel: Bus | Restaurant |
|---|---|---|---|---|
| Monday | ____ | ____ | ____ | ____ |
| Tuesday | ____ | ____ | ____ | ____ |
| Wednesday | ____ | ____ | ____ | ____ |
| Thursday | ____ | ____ | ____ | ____ |
| Friday | ____ | ____ | ____ | ____ |
| Saturday | | | ____ | ____ |
| Sunday | ____ | ____ | ____ | ____ |

**Other games in the manual that you played with your child.**
**Write the name of the game below:**

Monday _____

Tuesday _____

Wednesday _____

Thursday _____

Friday _____

Saturday _____

Sunday _____

WEST HAVEN - NOBLE STREET
PARENT TRAINING FEEDBACK SESSION - 4/8/98

Bhumba Lal

Played submarine and bus - every day once.

George's mom

Played bus and garden game. Loved bus game - used imagination to go further.

Xavier's mom

Restaurant game.

Gary's mom

Once every two days. Liked to be waiter in restaurant game - before going.

Tomiko[redacted]

Bus game - no yellow lights kid said - played.

Marcus' father

Loves restaurant - likes to change - bus game - likes to change and make up new.

Jessica's mom

Played all games, plus spaceship to moon. Likes submarine and spaceship - loved - starting to recognize.

? mom

Uses play restaurant - using blocks to make a cake.



Frank's mom

Submarine, space, and spring. No interest in restaurant game.

Jeffrey's mom

Played all games, especially restaurant and submarine games.

Andrew's mom

Played most - like restaurant and astronaut game. (Talk of focusing on concepts. Son afraid of mistake.)

Cindy

Submarine, bus, and restaurant - spaceship game - used their imagination - we forgot to "close door" and they fell out.

Carol's mom

Played a couple of games - pirate and jumped off ship to submarine. Bus game went to aquarium as well as zoo - named all fish.

Melissa's mom

Played all games. Loved spring game and planting - bus to zoo - restaurant game. Did not want to pay all $ for bus, just 2 pennies. Pretending to read - sounds better.

Jordan's mom

Most games - restaurant game, but child has insisted on real money - set whole table. Restaurant - older kids involved - playing. Going to play spring.

Shawn's mom

Very active. Makes up his own game and imagining - "rocket" not spaceship - restaurant and repeats each experience in play.

GATEWAY EARLY LEARNING CENTER
PARENT TRAINING FEEDBACK SESSION - 4/7/98

Training Session 2

Torry

Talked of what people did - played restaurant game, just showed other games - describes restaurant game in detail.

Tony

Concentrated on restaurant and also bus game to the zoo - played in car - loved restaurant game - when making dinner played restaurant - played game 1 hour 15 min. - pretended - chose "Friendly's" Restaurant - ended with real piece of cake. First day played 30 minutes.

Patty

Treshawn not interested in restaurant, but in bus. Got other brothers, found school, library, then found McDonald's. Played submarine - he loved that - really played - stuck on submarine. Got junk jewelry for treasure.

Andrea

Played submarine, trip to moon, bus to zoo, and restaurant - lion and banana - president called - kid wanted.

Jacky

2 of games - travel to bus, restaurant game, learned a lot, emphasized sharing, submarine and submarine game, but I forgot treasure submarine game, 1 hour.

Lory

Liked zoo game most, and submarine. Concentrated on zoo and animals, shapes, colors.

Kelly

Going to zoo - eager to get on yellow school - playing I was "bus driver." We had to pay for the bus - "put on seat belts" - went to zoo - knew colors of animals - little sister initiated - pretend banana - shared with monkey, said goodbye to animals. Played submarine game. Did seasons somewhat.

Sandra

Played all the games. Actually used this restaurant for real game. Played all games including an "airplane" game - playing - talk of planting a seed - moon visit - he watched Charlie Brown visiting moon.

June

Broke restaurant game down over several days - lot of anticipation - preparing menus, food colors, pretend birthday cake, called "restaurant" on phone and said, "I'd like to make a decoration."

Omar's mom

Chance to play all games, but he realized he loved spring game - but, did on at home.

## SUGGESTIONS

Dorothy

Elaborates suggestions on each activity in booklet. Reviews each one, emphasizing nutrition, planting. Zoo game - forgot certain things (importance of changes). Change manual to set up flexible settings. Submarine for coloring. More multicultural. Felipe - stiff.

Head Start Parent Workshop Notes- 5/20/98

1. Brian loved submarine, not the restaurant game. He's really into it. Liked spring, and a frog game we have. Got his flashlight for the submarine game.

2. She loved restaurant game. Plays it every day. Has 10 imaginary friends. Practicing colors. I will try the bus game.

3. Played restaurant game. We went over all the pictures. Played zoo game. Not interested in submarine game.

4. I taught him safety in addition to playing with him. Loved restaurant game, seasons game. We do a street game. Played submarine game.

5. She likes restaurant game. Then we went to a real restaurant. she insisted that she receive a menu. Played zoo game. Loved animals. Acting out them. Played bus game.

6. Played restaurant game. Played it over and over, then library game. Took child to library for first time.. child got own library card. Could not believe she could borrow books rather than pay for them. Very involved in learning to tell time so took a book out of library about clocks and telling time. Played late until 9:00 one night. Imaginary friends come to play with us. Learning to respect other peoples' property.

7. Restaurant game. Played every day. Reviewed all words in each game. Loved to play with money. Explained the seasons, fall.

8. Played retaurant every day, but still trouble with words and meanings. But played every day.. also played submarine.

9. Knows restaurant. Loves playing with the money. Not so sure of some of the words.

10. Restaurant, especially likes the money. Played treasure game. Digging for the treasure. Trip to the real zoo with my husband. Got involved about dinosaurs and started a dinosaur game.

11. Played restaurant game, but wanted real money. Trouble with seasons.

12. Played restaurant. Gave tips. Gypping the waitress. different reasons why. Submarine game not as much. Plays counting. Traveling everywhere on bus. Acting like animals. Spaceship game. Restaurant game every night.

13. Bus, shopping. Did not go for other games.

14. Did not play much of anything. He's balky and bossy. Did play grocery store. Does not know colors yet . Can't get from yellow banana to other colors. Bus trip to the library. "Why can't I take books from library?"

15. Travel with bus because I drive a school bus every morning. Stop at the zoo. Talked of his involvement with colors. Then played MacDonald. Played he was a waiter. Wanted to go to MacDonalds to actually work.. cried when mother explained that he could not. Played spring too.

PARENTS' COMMENTS ON FILMS AND MATERIALS

If there is little time, I use the bath, or dressing time to play games. I stay in my bed, and play in the bed. Use everyday occasions to play. Kids need more props. Need bigger crayons.

LULAC - PARENT WORKSHOP NOTES 5/21/98

1. Played spring, restaurant, submarine - 15-20 minutes. Liked restaurant best.

2. He liked submarine best, but played other games, but always wanted to go back to submarine.

3. Zoo game. Played all games. Liked bus game best. Played one half hour to 45 minutes. Put more time on bus game.

4. Played bus game and zoo game more than restaurant . Played about an hour each day.

5. My daughter plyed all games. Liked bus and restaurant game. Hard to name zebra, thinks it is a horse.

6. Spring, submarine, played rocket to the moon. Made pictures of rocket and moon rocks. Played 15-20 minutes each day.

7. Played all games. 40 minutes each day. Played with other child.. We had a "real" treasure. Even went to bed late.

8. Submarine and restaurant. Were very excited. Daughter was waitress, but son did not want to play so daughter was angry. Liked submarine, got boxes.

9. Played zoo game. He confuses lion, tiger and zebra. Likes restaurant.

10. Played all games. Would not come out of submarine. Learned all colors.

11. Played summer and spring. Some confusion between them. Played submarine, he was looking all around. Played zoo and bus game. Showed child a book. Liked to play with money for restaurant.. Submarine was very popular.

12. Played all games. Had them pointing out differnt faces.. worked on numbers, colors, shapes.

13. Played seasons and travel bus. Learned the word 'treasure' from TV program *Blues Clues*. Played restaurant, submarine. Liked submarine best. Knows ABCs. Read her books. Played 15 minutes each day.

PARENTS' COMMENTS ON FILM:

Parents were positive about the film and enjoyed it. They offered no negative comments. One parent who had not played with her child talked about her child's imaginary friend. We told her this was a good thing and reassured her. Another parent suggested a book called *Jessica's Friend* about this subject.

United Community Nursery School -Workshop Notes

Date: 5/21/98

1. Bus to the zoo - Play it all the time. Now he mostly plays alone. Walks around room pretends he sees animals and imitates their sounds. Also plays submarine game. We played 15 minutes a day and 45 minutes one day.

2. Daughter likes the restaurant game, but can't get a lot of the words.

3. Restaurant and bus to the zoo games. Games take their own turn. Stopped at the grocery for chocolate milk and cookies in bus game. Did not want to stop restaurant game. (Bilingual family) The submarine game was hard for her.

4. Spaceship. Rejected restaurant game. She's into her own games.

5. Played almost exclusively the submarine game. We're into aquaria and talked about sharks, fish, etc. Played 10 minutes to half hour a day.

6. Played all games. He chose restaurant everyday. Did not use the treasure map. He wanted to change script. Did not like me interfering. He played spring with birds and bees. Played Chinese restaurant. (Discussion of importance of story-telling).

7. Likes bugs, worms, fishing. I played restaurant game. He is always talking about insects. Went through the whole restaurant game.

8. Enjoyed the games and being played with. We did three games each day. She would let me go through the story line, but then she changed the game, and added to it. Liked the spring game. Two days we played over an hour, and 15 minutes the other day.

9. Last week, my wife played submarine, space ship, spring, and child brought us the material for the games.

10. When you mention playing, she wants to do it. Each game twice in a row. Loves restaurant game. She said, "You're asking me what I want". Usually we just give the child the food we have planned. I was the waiter and she was hysterical. I brought the bill. Then used money. Had a blast with the submarine game. Talks of counting forwards and backwards. Everyone had to go under the dining room table when we played the games of bus and submarine. She thought it was good to find the monkey's banana.

Parent's Suggestions for Tape and Manual:

1. Add a segment encouraging parents to help children invent new games.

2. Describe same game but played in a different way. Restaurant game can be played using a Chinese restaurant or no birthday.

3. They felt that Felepe was too smiley.

4. Omit idea of medals.

5. Do not use the narrator as the same person who plays the spring game.